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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,727	08/03/2001	Albert Orfao	3582/49121	5099

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EXAMINER

LAM, ANN Y

ART UNIT	PAPER NUMBER
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1641

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/920,727

Applicant(s)

ORFAO, ALBERT

Examiner

Ann Y. Lam

Art Unit

1641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "large particle" in lines 2 and 5, and "other particles" in line 6. It is unclear whether or not the "large particle" and "other particles" are the same or different.

Claim 9, line 4, recites the limitation "other layers." It is unclear to what "other layers" is referring. For example, is there a different layer claimed in claim 9?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Burger et al., 4,904,581.

Burger et al. disclose a process comprising : incubating a sample with at least one set of large-capturing particles (see column 10, lines 17-27, and lines 37-44, and column 14, lines 25- line 32) each of which are able to specifically bind/capture a large number of molecules, cells or other particles contained in the sample (see column 10, lines 25-36, and column 14, lines 31-47); analyzing the large-capturing particles containing specifically bound molecules, cells or other particles (see column 11, lines 1-5, and column 14, lines 21-23); sorting the large-capturing particles containing specifically bound molecules, cells or other particles (see column 11, lines 1-5.)

As to claim 2, said large-capturing particles may be of different sizes, materials, densities, and/or shapes, (see column 10, lines 19-25.)

As to claim 3, different types of molecules, cells or other particles can be bound to the large-capturing particles (see column 10, lines 19-25, and line 59 – column 11, line 5.)

As to claim 4, the large-capturing particles are covered with or bound to specific antibodies, parts of antibodies, oligonucleotides or other types of probes specific for the binding of the molecules, cells and other particles of interest (see column 10, line 59 – column 11, line 5.)

As to claim 5, the sample is simultaneously or sequentially incubated with two or more different sets of large-capturing particles for the isolation/depletion of two or more different types of molecules, cells or other particles from the sample (see column 5, lines 34-53, and column 16, lines 25-46.)

As to claim 6, each set of large-capturing particles can specifically bind one, two or more different types of molecules, cells or other particles from the sample (see column 10, lines 59-68.)

As to claim 7, the incubation of the sample with the large-capturing particles is performed by: (A) directly mixing the large-capturing particles with the sample (see column 8, lines 44-47); (B) passing the sample through a chamber containing the large-capturing particles (see column 9, line 62 – column 10, line 7, and column 10, line 59 – column 11, line 23); or (C) passing the large-capturing particles through the sample (see column 9, line 62 – column 10, line 7, and column 10, line 59 – column 11, line 23.)

As to claim 8, the distinction between the large-capturing particles bound to the molecules, cells or other sample particles is based on their scatter, fluorescence or both (see column 11, lines, 23-25.)

As to claim 9, the large-capturing particles bound to molecules, cells or other sample particles are sorted into Petri dishes, microtiter plates or other layers (see column 10, lines 29-31.

As to claim 10, different sample volumes and amounts of large-capturing particles can be used in combination, (see column 10, lines 59-63.)

As to claim 11, the molecules, cells or other sample particles of interest are detached from the large-capturing particles after they are sorted (see column 11, lines 1-5.)

As to claim 12, the molecules are DNA, mRNA, proteins, or peptides (see column 14, lines 41-43.)

As to claim 13, the other particles are chromosomes, mitochondria, zymogen granules or cell membranes (see column 4, lines 32-34.)

As to claim 14, the large particle is latex or polystyrene (see column 10, lines 37-44.)

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Allen et al., 5,488,567, discloses a method for detecting the presence of analyte particles using fluorescent labels. Elings et al., 4,421,860, discloses a method of using carrier particles and fluorescently-tagged reactant attached to the carrier particle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ann Y. Lam whose telephone number is (703) 306-5560. The examiner can normally be reached on M-Sat 11-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long V. Le can be reached on (703)305-3399. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0196.

A.L.



BAO-THUY L. NGUYEN
PRIMARY EXAMINER
9/30/03